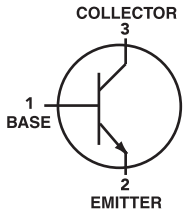
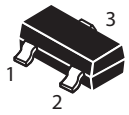
WEITRON

KTD1304

NPN EPITAXIAL PLANAR TRANSISTOR

Lead(Pb)-Free





SOT-23

ABSOLUTE MAXIMUM RATINGS(T_a =25°C Unless Otherwise Noted)

Rating	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	25	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	12	V
Collector Current-Continuous	I_C	0.3	A
Collector Power Disspation	P_C	0.2	W
Junction Temperature	T_J	150	˚C
Storage Temperature	T_{stg}	-55 - 150	˚C

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage I_C=0.1mA,I_E=0	BV_{CBO}	25	-	-	V
Collector-Emitter Breakdown Voltage I_C=1mA,I_B=0	BV_{CEO}	20	-	-	V
Emitter-Base Breakdown Voltage I_C=0,I_E=0.1mA	BV_{EBO}	12	-	-	V
Collector Cut-Off Current I_E=0,V_{CB}=25V	I_{CBO}	-	-	0.1	μA
Emitter-Cut-Off Current I_C=0,V_{EB}=12V	I_{EBO}	-	-	0.1	μA

ON CHARACTERISTICS

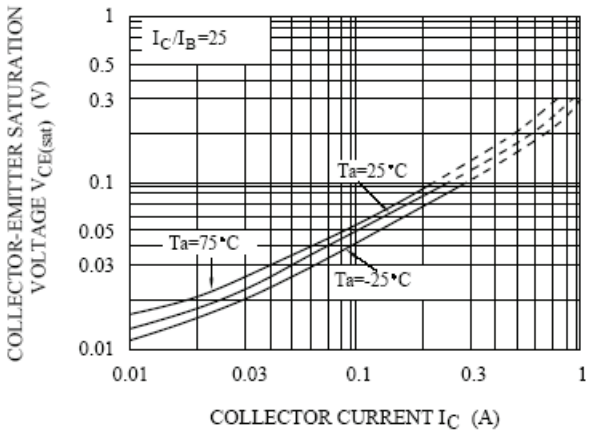
DC Current Gain I_C=4mA,V_{CE}=2V I_C=4mA,V_{CE}=2V	 $h_{FE(FOR)}$ $h_{FE(REV)}$	 200 20	 - -	 800 -	-
Collector-Emitter Saturation Voltage I_C=0.1A, I_B=10mA	$V_{CE(sat)}$	-	-	0.25	V
Base-Emitter Saturation Voltage I_C=0.1A, I_B=10mA	$V_{BE(sat)}$	-	-	1	V

DYNAMIC CHARACTERISTICS

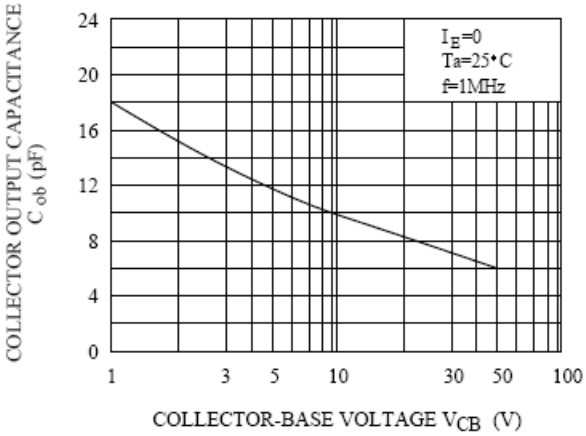
Transition Frequency I_C=1mA,V_{CE}=10V,f=100MHz	f_T	-	60	-	MHz
Collector Output Capacitance I_E=0,V_{CB}=10V,f=1MHz	C_{ob}	-	10	-	pF
On Resistance I_B=1mA,V_{in} =0.3V,f=1KHz	$R_{(on)}$	-	0.6	-	Ω

Typical characteristics

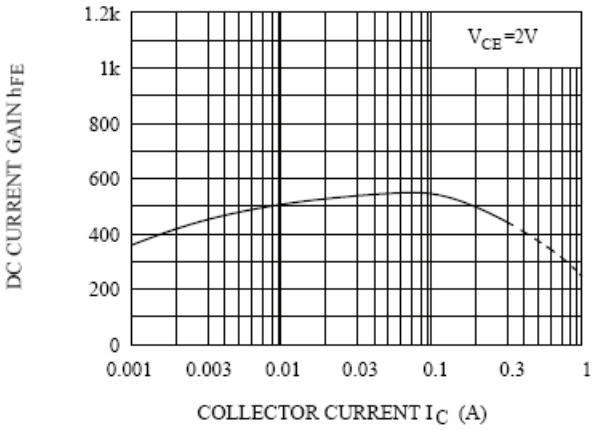
$V_{CE(sat)}$ - I_C



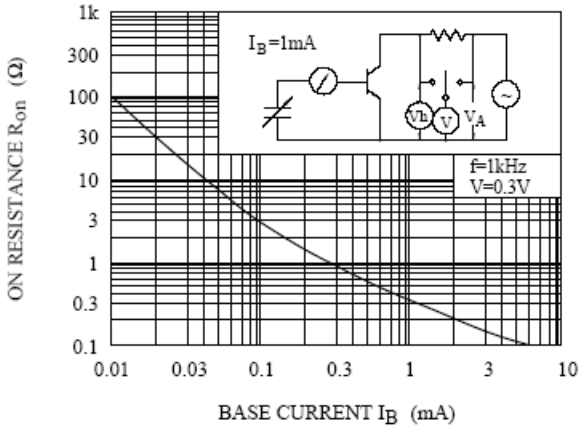
C_{ob} - V_{CB}



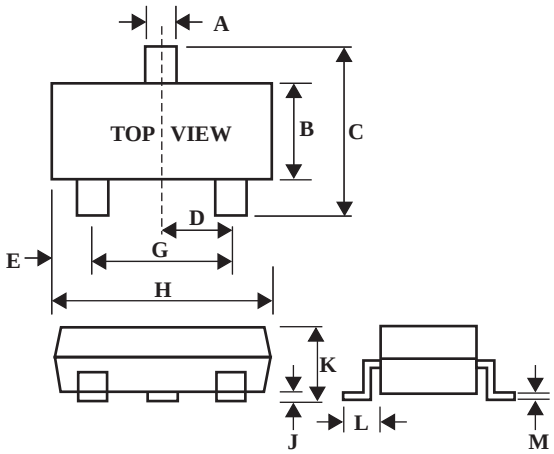
h_{FE} - I_C



R_{on} - I_B



SOT-23 Outline Dimension



SOT-23		
Dim	**Min**	**Max**
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25